California Regional Water Quality Control Board
Lahontan Region

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Arnold Schwarzenegger
Governor

March 26, 2009

TO: ATTACHED MAILING LIST

WDID NO. 6B360107001

TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS FOR LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT, San Bernardino County

Enclosed are tentative Waste Discharge Requirements (WDRs) for the above subject.

The California Regional Water Quality Control Board requests that you review the enclosed documents and provide us with your written comments no later than **April 24, 2009**. Comments received after that date cannot be given full consideration in preparation of the recommended Board Order to be presented to the Regional Board for adoption at the meeting scheduled for June 10, 2009.

If you need further information, please contact me at (760) 241-7306.
Sincerely,

Rebecca Phillips
Office Technician

Enclosures: Tentative Board Order
Comment form

cc: Mailing List

Notice

Submittal of Written Material for Regional Board Consideration

In order to ensure that the State of California Lahontan Regional Water Quality Control Board has the opportunity to fully study and consider written material, it is necessary to submit it at least ten (10) days before the Regional Board Meeting. Pursuant to Title 23 of the California Code of Regulations, Section 648.2, the Regional Board may refuse to admit written testimony into evidence unless the proponent can demonstrate why he or she was unable to submit the material on time or that compliance with the deadline would otherwise create a hardship. If any other party demonstrates prejudice resulting from admission of the written testimony, the Regional Board may refuse to admit it.

COMPLETE FORM AND RETURN

To: CA Regional Water Quality Control Board, Lahontan Region
14440 Civic Drive, Suite 200
Victorville, CA 92392
ATTN: Mike Coony

Comments TENTATIVE REVISED WASTE DISCHARGE REQUIREMENTS FOR LAKE ARROWHEAD CSD

_____We concur with proposed requirements

_____We concur; comments attached

_____We do not concur; comments attached

_____(Sign)

_____(Type or print name)

_____(Organization)

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_____(City and State)

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CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

BOARD ORDER NO. R6V-2009-(TENTATIVE)
WDID NO. 6B360107001

REVISED WASTE DISCHARGE REQUIREMENTS
FOR

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT
DOMESTIC WASTEWATER TREATMENT FACILITIES

San Bernardino County

The California Regional Water Quality Control Board, Lahontan Region (Water Board), finds:

1. Discharger

Lake Arrowhead Community Services District has submitted a Revised Report of Waste Discharge (RWD) for its Grass Valley and Willow Creek Domestic Wastewater Treatment Plants (WTPs). For the purposes of this Order, Lake Arrowhead Community Services District is referred to as the "Discharger." The RWD is for upgrading of the Discharger's facilities. On March 23, 2009, the Discharger completed its RWD. The documents that constitute the complete application are listed in Attachment D (References).

2. Facilities

The Discharger collects, treats and disposes of an annual average of approximately 1.3 million gallons per day (MGD) of domestic wastewater. Facilities for wastewater collection and treatment are located in the San Bernardino Mountains between elevations of 4,890 and 5,800 feet above mean sea level (amsl). Wastewater treatment occurs at the Grass Valley and Willow Creek WTPs. Secondary-treated effluent with nitrogen removed is transported by gravity flow in a 10-mile outfall pipeline to the Discharger's Hesperia Effluent Management Site (EMS) located in the Mojave Desert at an elevation of approximately 3,000 feet amsl. The Hesperia EMS occupies of 350 acres and includes four percolation ponds where treated wastewater is disposed and an area for application of treated wastewater to grow fodder crops. Operation of the Hesperia EMS began in 1977.

3. Reason for Action

In addition, the Water Board is updating requirements to incorporate a standard requirement for complying with water recycling regulations contained in California Code of Regulation, title 22 (Title 22). The Discharger is no longer required to meet title 22 requirements for discharge to the percolation ponds of the Hesperia EMS.

4. Order History

Attachment C includes a historical summary of Water Board Orders that previously prescribed Waste Discharge Requirements (WDRs) for the Discharger. The most recent of these WDRs were contained in Board Order No. R6V-2002-0008 adopted on February 13, 2002. On June 13, 2007, the Water Board established Master Water Recycling Requirements (Order No. R6V-2007-0022) for the Discharger's proposed project to supply up to 1.0 MGD of Title 22 disinfected tertiary treated recycled water treated to the Lake Arrowhead Country Club Golf Course and potentially other users within the Discharger's service area. The recycled water will be generated by the 1.0 MGD membrane filtration/ultraviolet treatment facility currently under construction at the Grass Valley WTP.

5. Description of Collection System

The Discharger's collection system consists of approximately 200 miles of sewers and 21 lift stations. Lake Arrowhead is predominately a residential/recreation community. Daily flows in the system rise during periods of recreational use within the community, commonly during holiday weekends. The daily flows also rise during periods of sewer inflow (i.e., inflow of groundwater and surface water into sewers through unsealed points). Higher sewer inflow occurs in the winter, typically in months that have the highest long-term average total precipitation (January and February).

6. Description of Treatment Facilities

Sewers convey untreated domestic wastewater to the Willow Creek and Grass Valley WTPs. A pipeline (Intertie Pipeline) is used to convey treated wastewater from the Willow Creek WTP to the Grass Valley WTP for further treatment (see Attachment A, Facilities Location Map). Table 1 describes existing and proposed treatment facilities for the Grass Valley WTP.

Table 1
Summary of Treatment Units at the Grass Valley WTP

Treatment Units	Existing Number of Units	Proposed Number of Units
Wastewater		
Aerated grit chamber	2	2
Primary clarifiers	2	3
High-rate plastic media trickling filters	2	3
Secondary Clarifiers	2	3
Effluent equalization ponds	1	1
Nitrogen Removal Bioreactors (methanol addition)	3	5
Chlorine contact tanks	2	2

Treatment Units	Existing Number of Units	Proposed Number of Units
1.0 MGD Membrane Filtration and Ultraviolet Disinfection Facility[1]	0	1
Sludge		
Gravity thickener	1	1
Belt filter press	1	2

Table Footnote:
1. The quality of effluent generated by this facility is regulated under a separate Order.

Table 2 summarizes flow rates that were used in the design of the proposed improvements at the Grass Valley treatment plant. Following implementation of the proposed upgrades the Grass Valley treatment plant will have capacity to provide secondary treatment (with N removal) for flow rates up to those summarized in Table 2.

Table 2
Flow Characterization Used for Design[1]
Grass Valley Wastewater Treatment Plant

Flow (Million Gallons per Day)	Type of Flow Measurement
Dry periods with no sewer inflow[2]	
2.7	Average during a 24-hour period
3.75	Average during a 72-hour period; holiday weekends (e.g., July 4th)
Wet periods with sewer inflow	
6.0	Average during a 24-hour period
8.0	Average during a 72-hour period; holiday weekends (e.g., January 1st)
12.0	Maximum instantaneous (or peak)

Table footnotes:
1. Adapted from Table 3-1 from the report titled: Final Basis of Design and Engineering Report, Grass Valley Wastewater Treatment Plant Recycled Water System Phase I Project, Prepared by CH2MHill, August 2006.
2. The term "sewer inflow" is defined as inflow of groundwater and surface water into the sewer system.

7. Locations of Facilities

The Willow Creek and Grass Valley WTPs are located within the W/2, Section 3, and the SE/4, Section 6, T2N, R3W, SBB&M, respectively. The Hesperia EMS is located within the SE/4, Section 1, T3N, R4W, SBB&M. The treatment facilities and the Hesperia EMS are located as shown on Attachment "A", which is made a part of this Order. The locations of existing monitoring wells at the Hesperia EMS are shown on Attachment "B", which is made a part of this Order.

8. Authorized Disposal/Recycling Site

Discharges of treated wastewater at the Hesperia EMS are subject to waste discharge requirements as set forth in this Order. The Hesperia EMS consists of 350-acres of land owned by the Discharger. The Discharger's percolation ponds and fodder-crop irrigation area are located at the Site. The percolation ponds have a disposal capacity of 4.0 MGD.

9. Sludge Treatment and Disposal

Biosolids are hauled offsite to an authorized facility for recycling/disposal.

10. Recycling Regulation

The State Department of Health Services has established statewide reclamation criteria for the use of recycled water for the irrigation of fodder crops. In accordance with section 13523 of the California Water Code (CWC), the Water Board consulted with and received the recommendations of the State Department of Health Services concerning reclamation requirements, which are incorporated within this Order.

11. Hydrogeology and Upgradient Groundwater Quality

The Discharger's Hesperia EMS is located in the City of Hesperia approximately two miles downstream of the Mojave Forks Dam. The Site is located adjacent to the west bank of the Mojave River. The soils underlying the Site consist of riverbed deposits (primarily of sands and gravels), which extend to depths between 100 and 200 feet. The average depth to groundwater at the Disposal Site is approximately 30 feet. The general direction of groundwater flows is in a northwesterly direction. Information on the quality of groundwater up gradient of the Hesperia EMS is given in Table 3.

Table 3
Quality of Groundwater

Constituents	MCLs[1]	Concentrations in Groundwater (Average)
Total Dissolved Solids (TDS) mg/L	500[2] and 1000[3]	260
Nitrate mg/L as N	10	2.0

Table Footnotes:
1. Drinking water Maximum Contaminant Levels (MCLs)
2. Secondary MCL (Recommended)
3. Secondary MCL (Upper)

12. Effluent Quality and Limits

Secondary treated wastewater is discharged to the Hesperia EMS. Monitoring data submitted by the Discharger demonstrate the quality of effluent discharged to the Site meets effluent limits contained in this Order. The limits have been carried over to this Order from the previous WDRs. The basis for the effluent limits are as follows:

Constituent	Basis
Biochemical Oxygen Demand (BOD)	Title 22 requirement that effluent applied to grow fodder crops be well oxidized
Methylene Blue Active Substances (MBAS)	Make certain there will not be foaming in receiving groundwater
Total Nitrogen	Ensure compliance with Basin Plan WQO for nitrate nitrogen in receiving groundwater

The quality of the effluent is summarized in Table 4.

Table 4
Quality of Secondary Treated Wastewater

Constituents	Concentrations (Average)
Total Dissolved Solids (TDS)	300
Total Nitrogen (mg/L as N)	3.5
Biochemical Oxygen Demand (mg/L)	8

13. Receiving Waters

The receiving waters are the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit, (Department of Water Resources Unit No. 6-42).

14. Lahontan Basin Plan

The Water Board adopted a Basin Plan, which became effective on March 31, 1995. This Order implements the Basin Plan, as amended.

15. Beneficial Uses

The beneficial uses of the groundwaters of the Upper Mojave Hydrologic Area of the Mojave Hydrologic Unit as set forth and defined in the Basin Plan are:

a. Municipal and domestic supply (MUN);
b. Agricultural supply (AGR);
c. Industrial service supply (IND); and
d. Freshwater replenishment (FRSH).

16. Antidegradation Analysis

Treated wastewater is currently discharged to the percolation ponds located at the Site. Evaluation of results of sampling and mathematical modeling indicates treated wastewater percolating from the ponds causes incremental-increases in concentrations of TDS and nitrate in groundwater (degradation) underlying and downgradient of the ponds. Results of modeling are contained in a report titled: Evaluation of Impact of Percolated Effluent on Groundwater in the Upper Mojave River Basin, Lake Arrowhead Community Services District, prepared by NBS/Lowry Engineers, March 1995.

Based on results of the evaluation, predicted incremental increases in groundwater underlying the ponds are less than: (a) 5 mg/L for TDS and (b) 0.1 mg/L for nitrate (as N). The affects of the discharge on groundwater concentrations decrease with distance from the ponds. At a distance of 3000 feet, the evaluation indicates incremental increases in concentrations reduce to less than 2 mg/L for TDS and 0.05 mg/L for nitrate as N. At individual wells near the Hesperia EMS, Trihalomethane (THM), which are disinfection by-products (DBPs), have generally been non-detect (< 0.5 ug/L) but there have been occasional detections with concentrations up to 25 ug/L for Total THMs. The drinking water MCL for Total THMs is 80 ug/L. This modified order removes the requirement for disinfection of the discharge to the Hesperia EMS percolation ponds.

State Water Resources Control Board (SWRCB) Resolution No. 68-16 (Statement of policy for maintaining high quality of waters in California) represents the Non-Degradation Objective in the Basin Plan. This WQO requires maintenance of existing high quality of waters. The permitted discharge to the Hesperia EMS is consistent with the antidegradation policy, because the changes in water quality (TDS, nitrate concentrations and DBPs) resulting from the discharges:

1. Are consistent with maximum benefit to people of the state as the water quality of the discharge is improved;

2. Will not unreasonably affect present and anticipated beneficial use of such water in that the final effluent limitations are protective of receiving quality;

3. Will not result in water quality less than prescribed in policies in that the discharge quality is improved and final effluent limitations are such that the discharge will not unreasonably affect present and anticipated beneficial uses and not result in a water quality less than prescribed in the Basin Plan because WQOs will be met; and

4. Best practicable treatment or technology control of the discharges are used to assure that (1) a pollution or nuisance will not occur and (2) the highest water quality consistent with maximum benefit to people of the state will be maintained. This condition is met because the Discharger has selected treatment or control technology to meet nitrogen effluent limitations. The Discharger has selected high-rate plastic media trickling filters and secondary clarifiers to meet BOD and methyleene blue active substances (MBAS) effluent limitations, and nitrogen removal bioreactors to meet nitrogen effluent limitations. The new requirements also eliminate the disinfection requirement for disposal to percolation ponds. This change should result in reducing DBPs in groundwater near the percolation ponds.

17. Possible Degradation by Other Constituents

Sampling results indicate sporadic detections of trihalomethane (THM) constituents in groundwater that have caused short term degradation. These detections have occurred in individual monitoring wells located in the vicinity of the percolation ponds. THM constituents are disinfection by-products (DBPs). Concentrations of THMs in the affected individual wells have generally been non-detect (< 0.5 ug/L), but there have been occasional detections with concentrations up to 25 ug/L for Total THMs. The drinking water MCL for Total THMs is 80 ug/L. This Order establishes a schedule to quantify groundwater degradation caused by DBPs discharges to groundwater at the Hesperia EMS.

18. Consideration of Water Code Section 13241 Factors

Section 13263 of the Water Code requires that the Board, when prescribing waste discharge requirements, take into consideration five specific factors in Section 13241 of the Water Code. The Board has considered these factors as follows.

a. Past, present, and probable future beneficial uses of water.

The hydrologic unit of the receiving waters is the Mojave River Groundwater Basin. This Order includes requirements for protection of the past, present, and probable future beneficial uses of groundwaters of the Groundwater Basin. The groundwater basin is presently in an overdraft condition. The beneficial use of the groundwater includes Municipal and Domestic Supply. Water Quality Objectives (WQOs) for the beneficial use Municipal and Domestic Supply will be met. Provisions in this Order and the attached Monitoring and Reporting Program require the Discharger to routinely sample groundwater monitoring wells for monitoring compliance with the WQOs including the Non-Degradation Objective contained in the Basin Plan. As discussed in Finding No. 17, this Order establishes a schedule, which the Discharger must follow to quantify any groundwater degradation that may have been caused by disinfection by-products (DBPs) discharges to groundwater at the Site and take appropriate action for any DBP degradation that is identified.

b. Environmental characteristics of the hydrographic unit under consideration, including the quality of water available thereto.

The geological and hydrogeologic characteristics of the subsurface soils and the groundwater basin are described in Finding No. 11. Findings No. 11 and 16 describe the quality of waters.

c. Water quality conditions that could reasonably be achieved through the coordinated control of all factors, which affect water quality in the area.

Alternatives to treat and control the proposed discharge were evaluated. As stated in Findings No. 16, the discharge meets the conditions set forth in SWRCB Resolution No. 68-16 allowing some degradation of groundwater.

d. Economic considerations.

Additional costs for more expensive alternatives (e.g., reverse osmosis to remove TDS and nitrate) were determined not to be justified based on the additional degree of groundwater protection.

e. The need for developing housing within the region.

A purpose of the Discharger's proposed project is to replace old facilities located at the Willow Creek WTP. This is a benefit to existing housing in that it is necessary to maintain the current level of service (wastewater treatment) the Discharger provides for existing residential dwellings.

f. The need to develop and use recycled water.

The permit authorizes use of recycled water for the irrigation of fodder crops.

19. California Environmental Quality Act Compliance

In accordance with the California Environmental Quality Act (CEQA), the Discharger, acting as the lead agency, filed a notice of exemption for the project. This occurred after the Discharger determined on April 28, 2009 that the project consists of replacement of existing treatment facilities and is exempt from the provisions of the CEQA (Public Resources Code, section 21000 et seq.) in accordance with California Code of Regulations (CCR), title 14, chapter 3, section 15302. The Discharger also determined there will be no possible significant effect on the environment (including water quality) as a result of the project.

20. Notification of Interested Parties

The Water Board has notified the Discharger and interested parties of its intent to revise WDRs for the discharge.

21. Consideration of Public Comments

The Water Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the Discharger shall comply with the following:

I. DISCHARGE SPECIFICATIONS

A. Effluent Limits

The flow of untreated wastewater to the Grass Valley WTP must not exceed the following:

1. Dry periods with no inflow of groundwater and surface water into the sewer system

   Average of 3.75 MGD during a 72-hour period.

2. Wet periods with inflow of groundwater and/or surface water into the sewer system

   a. Average of 6.0 MGD during a 24-hour period
   b. Average of 8.0 MGD during a 72-hour period (holiday weekend).
   c. Maximum instantaneous of 12.0 MGD

3. The total effluent flow to the Outfall Pipeline System pipelines during a 24-hour period shall not exceed 4.0 million gallons.

4. All wastewater discharged to the authorized disposal/recycling site shall not contain concentrations of parameters in excess of the following limits:

Parameter	Units	30-Day Mean	Daily Maximum
Biochemical Oxygen Demand	mg/L	20	30
Methylene Blue Active Substances	mg/L	1.0	2.0
Total Nitrogen as N	mg/L	8	10

5. All wastewater made available to the authorized disposal/recycling site shall have a pH of not less than 6.0 pH units nor more than 9.0 pH units. A pH value over 9.0 is allowed if it results from a biological process within the treatment facilities.

6. All wastewater discharged to the authorized disposal/recycling site shall have a dissolved oxygen concentration not less than 1.0 mg/L.

B. Receiving Water Limitation

1. The discharge shall not cause the nitrate concentration in groundwaters beneath the Hesperia EMS to exceed the USEPA drinking water maximum contaminant level of 10.0 mg/l as nitrogen.

2. This discharge shall not cause a violation of any applicable water quality standards for receiving water adopted by the Water Board or the State Water Resources Control Board (SWRCB).

3. The discharge shall not cause the presence of the following substances or conditions in groundwaters of the Mojave Hydrologic Unit:

   a. Bacteria: In groundwaters, the median concentration of coliform organisms over any seven-day period shall be less than 1.1/100 milliliters.

   b. Chemical Constituents: Groundwaters shall not contain concentrations of chemical constituents in excess of the MCL or secondary maximum contaminant level (SMCL) based upon drinking water standards specified in the following provisions of title 22 of the CCR: Table No. 64431-A of section 64431 (Inorganic Chemicals), Table No. 64431-B of section 64431 (Fluoride), Table No. 6444-A of section 64444 (Organic Chemicals), Table No. 64449-A of section 64449 (SMCLs - Consumer Acceptance Limits), and Table No. 64449-B of section 64449 (SMCLs - Ranges). This incorporation-by-reference is prospective including future changes to the incorporated provisions as the changes take effect. Waters designated as Agricultural Supply shall not contain concentrations of chemical constituents in amounts that adversely affect the water for beneficial uses (i.e., agricultural purposes).

   Groundwaters shall not contain concentrations of chemical constituents that adversely affect the water for beneficial uses.

   c. Radioactivity: Radionuclides shall not be present in concentrations that are deleterious to human, plant, animal, or aquatic life, or that result in the accumulation of radionuclides in the food chain to an extent that it presents a hazard to human, plant, animal, or aquatic life. Waters shall not contain concentrations of radionuclides in excess of limits specified in the CCR, title 22, chapter 15, article 5, section 64443.

d. Taste and Odors - Groundwaters shall not contain taste or odor-producing substances in concentrations that cause nuisance or that adversely affect beneficial uses. For groundwaters designated as Municipal or Domestic Supply at a minimum, concentrations shall not exceed adopted SMCLs specified in Table No. 64449-A of section 64449 (SMCLs - Ranges), and Table No. 64449-B of section 64449 (SMCLs - Ranges) of title 22 of the CCR, including future changes as the changes take effect.

C. Reclamation Specifications

Pursuant to Water Code section 13523.1, subdivision (b)(2), the Discharger must comply with the Uniform Statewide Reclamation Criteria, which are contained in CCR, title 22, sections 60301 through 60355 and are established pursuant to Water Code section 13521.

D. General Requirements and Prohibitions

1. There shall be no discharge, bypass, or diversion of untreated or partially treated sewage, sewage sludge, grease, or oils from the collection, transport, treatment, or disposal facilities to adjacent land areas or surface waters.

2. Surface flow or visible discharge of sewage or sewage effluent from the authorized disposal/recycling site to adjacent land areas or surface waters is prohibited.

3. All facilities used for collection, transport, treatment or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage, or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

4. The vertical distance between the liquid surface elevation and the lowest point of a pond dike or the invert of an over flow structure shall not be less than 2.0 feet.

5. Neither the treatment nor the discharge shall cause pollution, threatened pollution or nuisance as defined in the CWC.

6. The discharge of wastewater except to the authorized disposal/recycling site is prohibited.

7. Discharge of wastewater into the Willow Creek branch of the outfall pipeline is prohibited once the Discharger has decommissioned the secondary treatment facilities located at the Willow Creek WTP.

8. The discharge of waste, as defined in the CWC, which causes violation of any narrative WQO contained in the Basin Plan, including the Non-Degradation Objective, is prohibited.

9. The discharge of waste, which causes violation of any numeric WQO contained in the Basin Plan, is prohibited.

10. Where any numeric or narrative WQO contained in the Basin Plan is already being violated, the discharge of waste, which causes further degradation or pollution, is prohibited.

11. The Discharger shall comply with all existing federal and state laws and regulations that apply to sewage sludge use and disposal practices.

II. PROVISIONS

A. Waste Discharge Requirements

Provision No. II.B. of Board Order No. R6V-2002-0008 states that:

> "Discharge Specifications No. I.D.1, I.D.3 and I.D.5 of Board Order No. 6-89-110 shall remain in effect and unchanged. All other Discharge Specifications and Findings of Board Order No. 6-89-110, and all Provisions of Board Order No. 6-89-110 are no longer in effect."

The above provision shall remain in effect and unchanged. All other Provisions and all Discharge Specifications and Findings of Board Order No. R6V-2002-0008 are no longer in effect.

B. Compliance Schedule

Pursuant to the CWC, section 13267, the Discharger must meet the following compliance milestones:

1. Submit to the Water Board's Victorville office: a. A **Work Plan** for conducting a site investigation to further define any presence (including the magnitude and extent) of disinfection by-products (DBPs) in groundwater underlying the Hesperia EMS. b. A **Sampling and Analysis Plan** to monitor for the presence of "new and emerging chemicals"[1] in groundwater underlying the Site.	**August 14, 2009**
2. Following acceptance of the above-referenced **Plans**, begin the site investigation and emerging chemical sampling described in the **Plans**.	**October 16, 2009**
3. Submit to the Water Board's Victorville office a **Site Investigation Report** containing the results of site investigation, emerging chemical sampling and recommendations to address any degradation detected.	**May 14, 2010**
4. Implement accepted recommendations to address any degradation detected.	**July 16, 2010**
5. Submit a **Final Report** on results of recommendations that were implemented.	**October 15, 2010**

[1] The California Department of Public Health includes a definition of "new and emerging contaminants" at the following website: "http://www.cdph.ca.gov/certlic/drinkingwater/Pages/EmergingContaminants.aspx." The website states that "new and emerging contaminants are unregulated and may represent new contaminants (e.g., MTBE, now regulated in California) or those that may have been present but not detected (e.g., perchlorate, now regulated in California). Among these are pharmaceuticals and personal care products, industrial chemicals present at low concentrations, and chemicals that may affect hormone status, referred to as "endocrine disruptors."

C. Operator Certificates

The Discharger's treatment facilities shall be supervised by persons possessing a wastewater treatment plant operator certificate of appropriate grade pursuant to title 23, of the CCR.

D. Standard Provisions

The Discharger shall comply with the "Standard Provisions for WDRs" dated September 1, 1994, in (Attachment "E") which is made part of this Order.

E. Monitoring and Reporting

1. Pursuant to Section 13267(b), the Discharger shall comply with the Monitoring and Reporting Program R6V-2009-(TENTATIVE) as specified by the Executive Officer.

2. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of the Monitoring and Reporting Program.

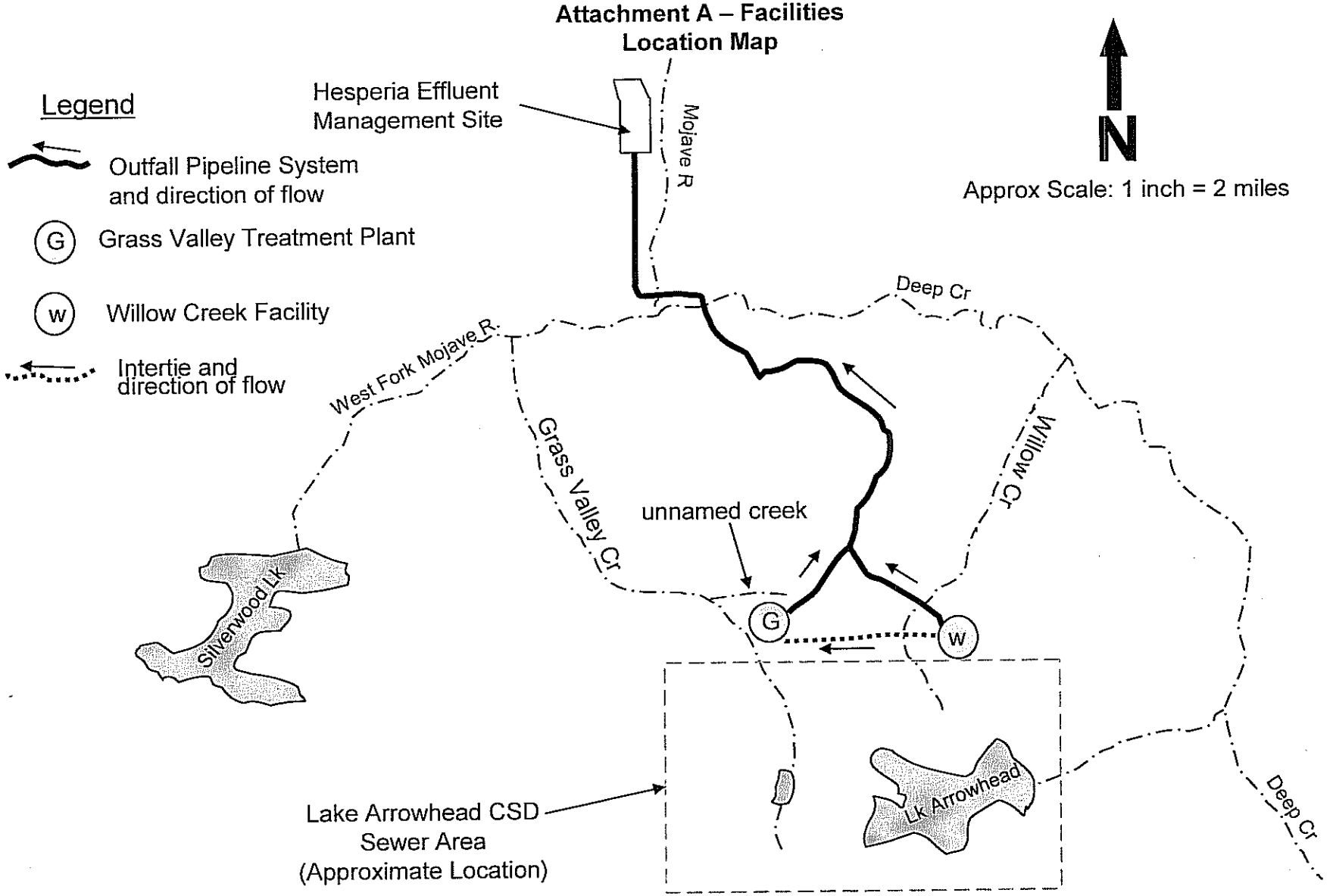
3. The names and grades of treatment facility operators, certified in accordance with Provision No. II.D shall be reported to the Water Board's Victorville office by **March 30th** of each year.

I, Harold J. Singer, Executive Officer, do hereby certify that the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, Lahontan Region, on June 10, 2009.

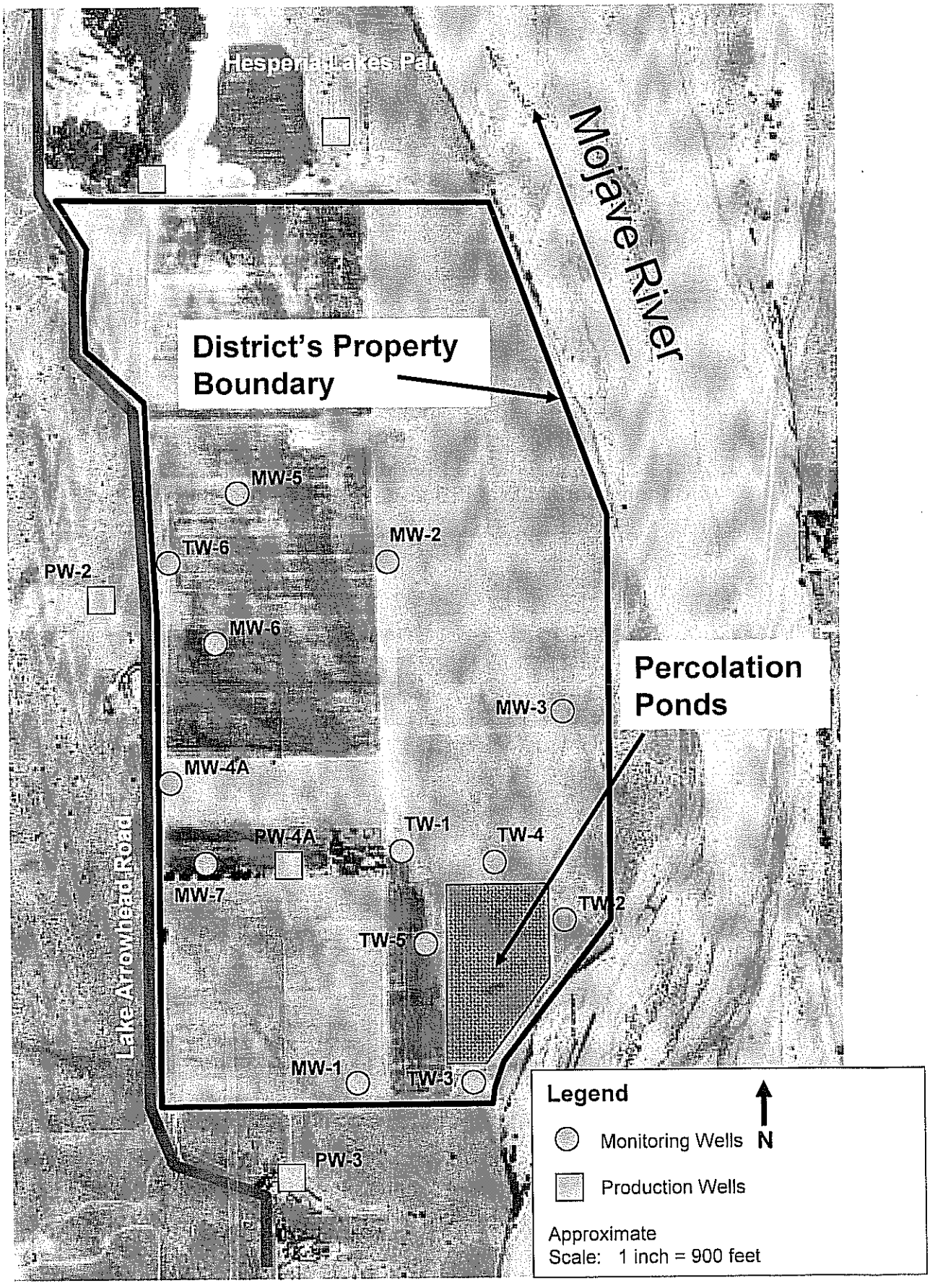
_____
HAROLD J. SINGER
EXECUTIVE OFFICER

Attachments: A. Location Map
B. Hesperia Effluent Management Site
C. Old Board Orders (Waste Discharge Requirements)
D. References
E. Standard Provisions for Waste Discharge Requirements

Attachment A – Facilities Location Map



Attachment B
Lake Arrowhead CSD - Hesperia Effluent Management Site



Attachment C
Old Board Orders (Waste Discharge Requirements), Lake Arrowhead CSD (District)

Date	Wastewater Discharge Point	Disinfection Requirement	Board Order No.	Event
1966	Mojave River	Yes	6-66-19	District proposes to construct an outfall pipeline, began releasing disinfected (chlorinated) effluent into the pipeline and discharging from the pipeline to the Mojave River at downgradient edge of Forks Dam.
1972	"	Yes	6-72-67	Discharge to Mojave River created ponds that were used by swimmers and fishermen.
1974	"	Yes	6-74-15	Order included a schedule with a final compliance due date of 7/1/1975, to comply with effluent limits (coliform limits), receiving water limits and the requirement to not cause a nuisance.
1977	Fodder crop irrigation site and percolation ponds	Required daily monitoring of the chlorine residual[1]	6-77-68	District proposes to add 2.5 miles of pipeline to the outfall pipeline to convey treated wastewater to its current Hesperia Disposal Site.
1980	"	Yes	6-80-23	
1983	"	Yes	6-83-103	
1988	"	Yes	6-88-10	
May 11, 1989	"	Yes	6-89-110	
2002	"	Yes	6-02-08	

[1] Board Order does not require disinfection, but MRP requires daily monitoring of chlorine residual.

ATTACHMENT D
APPLICATION DOCUMENTS AND REFERENCES

1. LACSD, 2009, Revised Plan for Complying with CEQA, March 23.

2. Lake Arrowhead Community Services District (LACSD), 2009, Revised Plan for Revision of Waste Discharge Requirements, February 11.

3. LACSD, 2007, Design plans titled: Grass Valley Treatment Plant Expansion to 3.75 MGD, October.

4. LACSD, 2006, August 21, Form 200

5. LACSD, 2006, Final Basis of Design and Engineering Report, Grass Valley Wastewater Treatment Plant Recycled Water System Phase I Project, Prepared by CH2MHill, August.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

STANDARD PROVISIONS
FOR WASTE DISCHARGE REQUIREMENTS

1. Inspection and Entry

The Discharger shall permit Regional Board staff:

a. to enter upon premises in which an effluent source is located or in which any required records are kept;

b. to copy any records relating to the discharge or relating to compliance with the Waste Discharge Requirements (WDRs);

c. to inspect monitoring equipment or records; and

d. to sample any discharge.

2. Reporting Requirements

a. Pursuant to California Water Code 13267(b), the Discharger shall immediately notify the Regional Board by telephone whenever an adverse condition occurred as a result of this discharge; written confirmation shall follow within two weeks. An adverse condition includes, but is not limited to, spills of petroleum products or toxic chemicals, or damage to control facilities that could affect compliance.

b. Pursuant to California Water Code Section 13260 (c), any proposed material change in the character of the waste, manner or method of treatment or disposal, increase of discharge, or location of discharge, shall be reported to the Regional Board at least 120 days in advance of implementation of any such proposal. This shall include, but not be limited to, all significant soil disturbances.

c. The Owners/Discharger of property subject to WDRs shall be considered to have a continuing responsibility for ensuring compliance with applicable WDRs in the operations or use of the owned property. Pursuant to California Water Code Section 13260(c), any change in the ownership and/or operation of property subject to the WDRs shall be reported to the Regional Board. Notification of applicable WDRs shall be furnished in writing to the new owners and/or operators and a copy of such notification shall be sent to the Regional Board.

d. If a Discharger becomes aware that any information submitted to the Regional Board is incorrect, the Discharger shall immediately notify the Regional Board, in writing, and correct that information.

e. Reports required by the WDRs, and other information requested by the Regional Board, must be signed by a duly authorized representative of the Discharger. Under Section 13268 of the California Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation.

f. If the Discharger becomes aware that their WDRs (or permit) are no longer needed (because the project will not be built or the discharge will cease) the Discharger shall notify the Regional Board in writing and request that their WDRs (or permit) be rescinded.

3. Right to Revise WDRs

The Regional Board reserves the privilege of changing all or any portion of the WDRs upon legal notice to and after opportunity to be heard is given to all concerned parties.

4. Duty to Comply

Failure to comply with the WDRs may constitute a violation of the California Water Code and is grounds for enforcement action or for permit termination, revocation and re-issuance, or modification.

5. Duty to Mitigate

The Discharger shall take all reasonable steps to minimize or prevent any discharge in violation of the WDRs which has a reasonable likelihood of adversely affecting human health or the environment.

6. Proper Operation and Maintenance

The Discharger shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the Discharger to achieve compliance with the WDRs. Proper operation and maintenance includes adequate laboratory control, where appropriate, and appropriate quality assurance procedures. This provision requires the operation of backup or auxiliary facilities or similar systems that are installed by the Discharger, when necessary to achieve compliance with the conditions of the WDRs.

7. Waste Discharge Requirement Actions

The WDRs may be modified, revoked and reissued, or terminated for cause. The filing of a request by the Discharger for waste discharge requirement modification, revocation and re-issuance, termination, or a notification of planned changes or anticipated noncompliance, does not stay any of the WDRs conditions.

8. Property Rights

The WDRs do not convey any property rights of any sort, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations.

9. Enforcement

The California Water Code provides for civil liability and criminal penalties for violations or threatened violations of the WDRs including imposition of civil liability or referral to the Attorney General.

10. Availability

A copy of the WDRs shall be kept and maintained by the Discharger and be available at all times to operating personnel.

11. Severability

Provisions of the WDRs are severable. If any provision of the requirements is found invalid, the remainder of the requirements shall not be affected.

12. Public Access

General public access shall be effectively excluded from treatment and disposal facilities.

13. Transfers

Providing there is no material change in the operation of the facility, this Order may be transferred to a new owner or operation. The owner/operator must request the transfer in writing and receive written approval from the Regional Board's Executive Officer.

14. Definitions

a. "Surface waters" as used in this Order, include, but are not limited to, live streams, either perennial or ephemeral, which flow in natural or artificial water courses and natural lakes and artificial impoundments of waters. "Surface waters" does not include artificial water courses or impoundments used exclusively for wastewater disposal.

b. "Ground waters" as used in this Order, include, but are not limited to, all subsurface waters being above atmospheric pressure and the capillary fringe of these waters.

15. Storm Protection

All facilities used for collection, transport, treatment, storage, or disposal of waste shall be adequately protected against overflow, washout, inundation, structural damage or a significant reduction in efficiency resulting from a storm or flood having a recurrence interval of once in 100 years.

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

REVISED MONITORING AND REPORTING PROGRAM NO. R6V-2009-(TENT)
WDID NO. 6B360107001
FOR

LAKE ARROWHEAD COMMUNITY SERVICES DISTRICT
DOMESTIC WASTEWATER TREATMENT FACILITIES

San Bernardino County

I. MONITORING

A. Flow Monitoring

1. The following shall be recorded for the flows from the Collection System to each to the Grass Valley Wastewater Treatment Plant (WWTP):
   a. Maximum instantaneous flow rate (million gallons per day) for each day
   b. Total volume (million gallons) for each day,
   c. Total volume (million gallons) for each month, and
   d. Average flowrate (million gallons per day) for each month

2. The following shall be recorded for flows to the Irrigation Area and Percolation Ponds:
   a. Total volume (million gallons) for each day,
   b. Total volume (million gallons) for each month, and
   c. Average flowrate (million gallons per day) for each month

3. The Discharger shall measure and record the freeboard (distance from the top of the lowest part of the dike to the wastewater surface in pond) in each Percolation Pond each month. If a Percolation Pond does not contain wastewater, indicate that it is empty.

4. The Discharger shall record and report the total rainfall (inches) for each day in the Collection System area. The Discharger may report data generated by the existing Lake Arrowhead precipitation station, which is maintained by San Bernardino County Flood Control District.

C. Effluent Monitoring

Samples of effluent from the Grass Valley WWTP shall be collected and analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type of Sample	Frequency[1]
BOD[2]	mg/L	Grab	Weekly
Methylene Blue Active Substances	mg/L	Grab	Weekly

D. Outfall Monitoring

The Discharger shall collect samples of effluent from the Outfall Pipeline System at the Hesperia Disposal Site. (In lieu of sampling at the Hesperia Effluent Management Site, the Discharger may collect effluent samples at the Grass Valley WWTP.) The samples shall be analyzed to determine the magnitude of the following parameters:

Parameter	Units	Type of Sample	Frequency[1]
BOD[2]	mg/L	6-hour composite[3]	Weekly
Chemical Oxygen Demand (COD)	mg/L	6-hour composite[3]	Weekly
Methylene Blue Active Substances	mg/L	6-hour composite[3]	Weekly
Dissolved Oxygen (DO)	mg/L	Grab	Weekly
pH	pH units	Grab	Weekly
Nitrate Nitrogen	mg/L as N	6-hour composite[3]	Weekly
Kjeldahl Nitrogen	mg/L as N	6-hour composite[3]	Weekly
Ammonia Nitrogen	mg/L as N	6-hour composite[3]	Weekly
Total Organic Carbon	mg/L	6-hour composite[3]	Monthly
Chloride	mg/L	24-hour composite[3]	Quarterly
Sodium	mg/L	24-hour composite[3]	Quarterly
Sulfate	mg/L	24-hour composite[3]	Quarterly
Total Dissolved Solids	mg/L	24-hour composite[3]	Quarterly
Total Trihalomethane Constituents (THMs)[7]	mg/L	Grab	Quarterly
Total Haloacetic Acid Constituents (HAA5s)[7]	mg/L	Grab	Quarterly
Total Chromium[4]	mg/L	24-hour composite[3]	Annually
Hexavalent Chromium[4]	mg/L	24-hour composite[3]	Annually
Heavy Metals[5]	mg/L	24-hour composite[3]	Annually
Semivolatile Organic Compounds (SVOCs)[6]	mg/L	24-hour composite[3]	Annually
Volatile Organic Compounds (VOCs)[7]	mg/L	Grab	Annually
Gross Alpha	pCi/L	24-hour composite[3]	Annually[8]
Gross Beta	pCi/L	24-hour composite[3]	Annually[8]

E. Ground Water Monitoring Hesperia Disposal Site

Grab samples of ground water shall be collected from the following wells:

Well No.	Type
PW-2	Individual water supply well
PW-3 or PW-3A	"
PW-4A	"
MW-5	Ground water monitoring well
MW-1	"
MW-2	"
MW-3	"
MW-4	"
MW-6	"
MW-7	"
TW-1	"
TW-2	"
TW-3	"
TW-4	"
TW-5	"
TW-6	"

The frequency of well sampling shall be as described below, and the samples shall be analyzed to determine the magnitude of the parameters listed below.

Parameter	Frequency (MW-1, 2, 3, 4, 5, 6 & 7)	Frequency (TW- 1, 2, 3, 4, 5 & 6)	Frequency (PW-2 & 4A and PW 3 or 3A)
Nitrate Nitrogen as N	Quarterly	Quarterly	Semiannually
Total Dissolved Solids	Quarterly	Quarterly	Semiannually
BOD[2]	Quarterly	Semiannually	Semiannually
Chloride	Quarterly	Semiannually	Semiannually
COD	Quarterly	Semiannually	Semiannually
Methylene Blue Active Substances	Quarterly	Semiannually	Semiannually
Total Trihalomethane Constituents (THMs)[7]	Quarterly	Quarterly	Semiannually
Total Haloacetic Acid Constituents (HAA5s)[7]	Quarterly	Quarterly	Semiannually
Sodium	Quarterly	Semiannually	Semiannually
Sulfate	Quarterly	Semiannually	Semiannually
Total Organic Carbon	Quarterly	Semiannually	Semiannually
VOCs[7]	Annually	Annually	Annually
Gross Alpha	Annually	Annually	Annually
Gross Beta	Annually	Annually	Annually

The Discharger shall sufficiently purge each monitoring well before sampling. Purging shall be in accordance with generally accepted sampling practice, to obtain a "representative" ground water sample. If a non-purging method is used, the method proposed must be approved, in advance, by Water Board staff.

Quarterly, the Discharger shall measure and record the depth below the ground surface and determine the elevation above mean sea level of the ground water surface in the ground water monitoring wells listed above.

Annually, the Discharger shall plot the above-described elevations and elevation isopleths (ground water elevation contours) on an 11" x 17" copy of a site plan, which shows the boundaries of the Hesperia Disposal Site and locations of the above listed wells; and calculate and record the ground water gradient, the direction of the gradient, and velocity of ground water flow at the authorized disposal/recycle sites.

Quarterly, the Discharger shall monitor the wells for the following field parameters:

Parameter	**Units**
Electrical Conductivity (E_c)	µMHOS/CM
Ph	Ph Units
Temperature	^{O}F or ^{O}C
Turbidity	NTU

F. Sludge Monitoring

In the last quarterly report of the calendar year, the Discharger shall describe the methods used to dispose/recyce biosolids. Disposal/recycling must be in accordance with the provisions in the Discharger's Sludge Management Plan and US EPA regulations.

G. Supply Water Monitoring

For each semiannual period, a report shall be submitted to the Water Board detailing a chemical analysis that is representative of the average supply water used within the pertaining sewered areas. Supply water samples for this analysis shall be collected concurrently with effluent samples.

H. Operation and Maintenance

A brief summary of any operational problems and maintenance activities shall be submitted to the Water Board with each monitoring report.
This summary shall discuss:

1. Any modifications or additions to the wastewater conveyance system, treatment facilities, or disposal facilities;

2. Any major maintenance conducted on the wastewater conveyance system, treatment facilities, or disposal facilities;

3. Any major problems occurring in the wastewater conveyance system, treatment facilities, or disposal facilities; and

4. The calibration of any wastewater flow measuring devices.

I. REPORTING

A. General Provisions

1. The Discharger shall comply with the "General Provisions for Monitoring and Reporting," dated September 1, 1994, which is attached to and made part of this Monitoring and Reporting Program.

2. In accordance with Provision No. 3.a. of the General Provisions for Monitoring and Reporting, the Discharger shall make a compliance statement in each submitted monitoring report, noting each violation that occurred during the reporting period and actions taken and/or proposed to return into compliance.

B. Quarterly Reports

Beginning on **July 31, 2009**, quarterly monitoring reports including the preceding information shall be submitted to the Water Board before the end of the month following each quarterly monitoring period.

C. Annual Report

By **March 30th** of each year, the Discharger shall submit an annual report to the Water Board with the following information:

1. The compliance record and the corrective actions taken or planned, which may be needed to bring the discharge into full compliance with the discharge requirements.

2. A time schedule for additional proposed compliance actions.

3. Graphical and tabular data for the monitoring data obtained for the previous year.

Ordered by: _____ Dated: **June 10, 2009**

HAROLD J. SINGER
EXECUTIVE OFFICER

Attachment: General Provisions for Monitoring and Reporting Program

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1 Samples shall be collected at a time during the day when the flowrate is at a maximum. At least one half of the samples that are collected on a weekly frequency shall be collected on weekends.

2 BOD (5-day, 20°C) conducted on an unfiltered sample.

3 Samples shall be collected at least every hour and composited in proportion to the flowrate.

4 Use appropriate USEPA approved methods that will quantify concentrations down to 0.001 mg/L for hexavalent chromium and 0.0025 mg/L for total chromium.

5 Analyze for the metals listed in Table II of Section 66261.24(a)(2)(A), Title 22, California Code of Regulations. Use appropriate USEPA approved methods with a minimum quantification limit equal to the background concentration of each metal in ground water. In no case shall the quantification limit be more than the Detection Limits for the Purposes of Reporting (DLRs). The California Department of Health Services establishes DLRs for analyses conducted on samples collected from drinking water supply systems.

6 Use either USEPA Method 625 or 8027.

7 Use an appropriate USEPA Method with a Detection Limit for the Purposes of Reporting (DLR) of 0.5 micrograms per liter or less.

8 Samples shall be taken after disclosure of backwash from deionization unit and there has been adequate time for the release to travel to the sampling point.

MC/rp BO2009/LakeArrowhead/R6V-2009-tt MRP LkArrowhead

ATTACHMENT A

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
LAHONTAN REGION

GENERAL PROVISIONS
FOR MONITORING AND REPORTING

1. SAMPLING AND ANALYSIS

   a. All analyses shall be performed in accordance with the current edition(s) of the following documents:

      i. Standard Methods for the Examination of Water and Wastewater

      ii. Methods for Chemical Analysis of Water and Wastes, EPA

   b. All analyses shall be performed in a laboratory certified to perform such analyses by the California State Department of Health Services or a laboratory approved by the Regional Board Executive Officer. Specific methods of analysis must be identified on each laboratory report.

   c. Any modifications to the above methods to eliminate known interferences shall be reported with the sample results. The methods used shall also be reported. If methods other than EPA-approved methods or Standard Methods are used, the exact methodology must be submitted for review and must be approved by the Regional Board prior to use.

   d. The Discharger shall establish chain-of-custody procedures to insure that specific individuals are responsible for sample integrity from commencement of sample collection through delivery to an approved laboratory. Sample collection, storage, and analysis shall be conducted in accordance with an approved Sampling and Analysis Plan (SAP). The most recent version of the approved SAP shall be kept at the facility.

   e. The Discharger shall calibrate and perform maintenance procedures on all monitoring instruments and equipment to ensure accuracy of measurements, or shall insure that both activities will be conducted. The calibration of any wastewater flow measuring device shall be recorded and maintained in the permanent log book described in 2.b, below.

   f. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

   g. A composite sample is defined as a combination of no fewer than eight individual samples obtained over the specified sampling period at equal intervals. The volume of each individual sample shall be proportional to the discharge flow rate at the time of sampling. The sampling period shall equal the discharge period, or 24 hours, whichever period is shorter.

2. OPERATIONAL REQUIREMENTS

a. Sample Results

Pursuant to California Water Code Section 13267(b), the Discharger shall maintain all sampling and analytical results including: strip charts; date, exact place, and time of sampling; date analyses were performed; sample collector's name; analyst's name; analytical techniques used; and results of all analyses. Such records shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

b. Operational Log

Pursuant to California Water Code Section 13267(b), an operation and maintenance log shall be maintained at the facility. All monitoring and reporting data shall be recorded in a permanent log book.

3. REPORTING

a. For every item where the requirements are not met, the Discharger shall submit a statement of the actions undertaken or proposed which will bring the discharge into full compliance with requirements at the earliest time, and shall submit a timetable for correction.

b. Pursuant to California Water Code Section 13267(b), all sampling and analytical results shall be made available to the Regional Board upon request. Results shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge, or when requested by the Regional Board.

c. The Discharger shall provide a brief summary of any operational problems and maintenance activities to the Board with each monitoring report. Any modifications or additions to, or any major maintenance conducted on, or any major problems occurring to the wastewater conveyance system, treatment facilities, or disposal facilities shall be included in this summary.

d. Monitoring reports shall be signed by:

i. In the case of a corporation, by a principal executive officer at least of the level of vice-president or his duly authorized representative, if such representative is responsible for the overall operation of the facility from which the discharge originates;

ii. In the case of a partnership, by a general partner;

iii. In the case of a sole proprietorship, by the proprietor; or

iv. In the case of a municipal, state or other public facility, by either a principal executive officer, ranking elected official, or other duly authorized employee.

e. Monitoring reports are to include the following:

i. Name and telephone number of individual who can answer questions about the report.

ii. The Monitoring and Reporting Program Number.

iii. WDID Number.

f. Modifications

This Monitoring and Reporting Program may be modified at the discretion of the Regional Board Executive Officer.

4. NONCOMPLIANCE

Under Section 13268 of the Water Code, any person failing or refusing to furnish technical or monitoring reports, or falsifying any information provided therein, is guilty of a misdemeanor and may be liable civilly in an amount of up to one thousand dollars ($1,000) for each day of violation under Section 13268 of the Water Code.